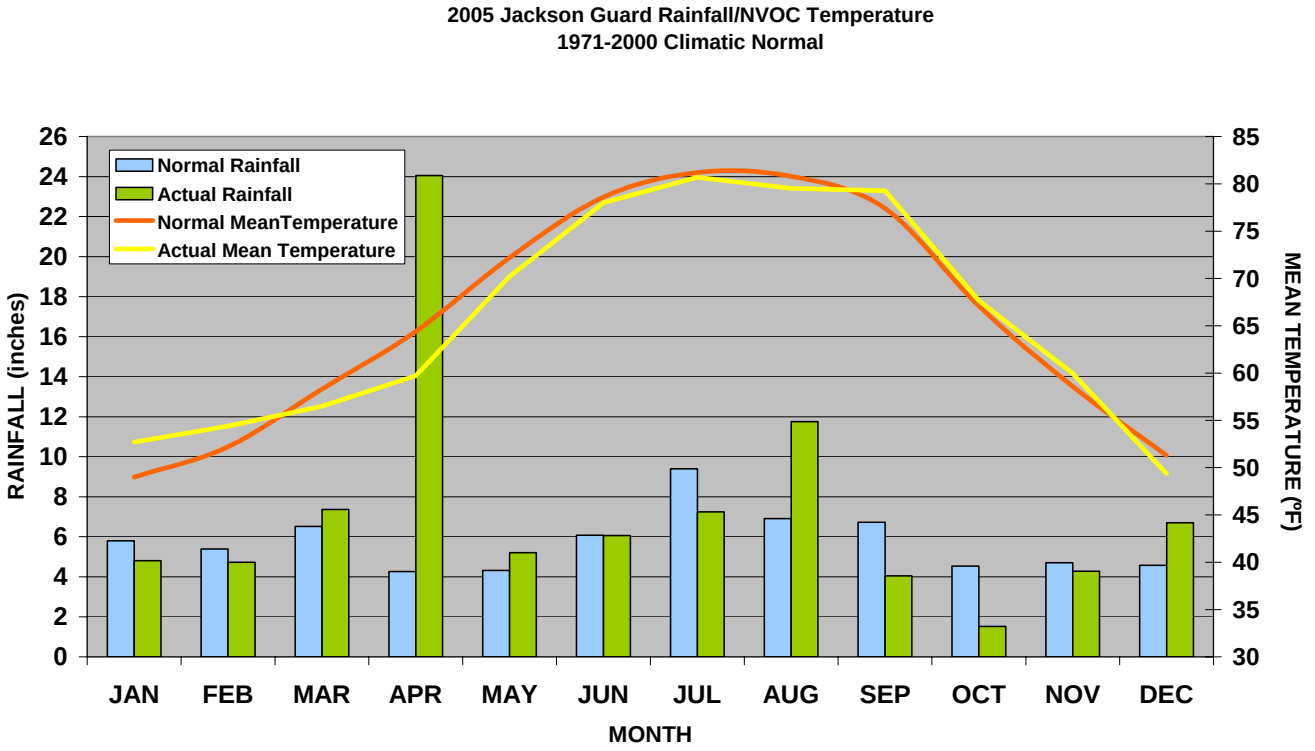
Introduction

December 2005 produced below normal temperatures and above normal precipitation for Niceville, FL. An unofficial F0 tornado caused minor damage in the Fort Walton Beach vicinity during the early morning hours of 5 December and rainfall of three inches in the Niceville area occurred on 15 December were the month's notable events. A progressive series of strong cold fronts ushered in polar air at the start of meteorological winter after a warm and dry autumn. Annually, a mean temperature of **65.7**°F (-0.3°F cooler) and precipitation of **91.62** inches (+22.42 inches above) marked the third wettest year in Niceville's official climate history. Eglin AFB recorded **89.63** inches which established their second wettest year since their all time record of 104.36 inches was set in 1975 when Hurricane Eloise and a nearly stationary tropical depression produced over forty inches of rainfall. The excessive rainfall in 2005 occurred when 34 inches fell in March-April and the tropical weather in July-August generated 23 inches. A minor drought in the fall months of September-October-November eliminated some surplus moisture near year's end. A F0 tornado occurred along the fringes of Tropical Storm Cindy (6 July) northeast of Laurel Hill caused $15K damage to power lines. Another two F0 tornados spawned by the outer fringes of Hurricane Katrina on 28-29 August in Valparaiso and Holt respectively caused a total of $10K to power lines and trees.



December 2005 Climate Summary

Jackson Guard rainfall for December totaled **6.70** inches and the Niceville (NVOC) Regional Sewer Board, Inc. recorded **7.28** inches (2.71 inches above normal). Year to date 2005 rainfall at Jackson Guard was **87.78** inches. Eglin AFB recorded **4.95** inches for the month, 0.40 inches above the normal of 4.55 inches. Year to date 2005 rainfall at Eglin was **89.63** inches which is 26.44 inches above the normal of 63.19 inches. Pensacola, FL recorded **4.66** inches, which is 0.69 inches above the normal of 3.97 inches. Year to date 2005 rainfall at Pensacola, FL was **87.32** inches, which is 23.04 inches above normal of 64.28 inches.

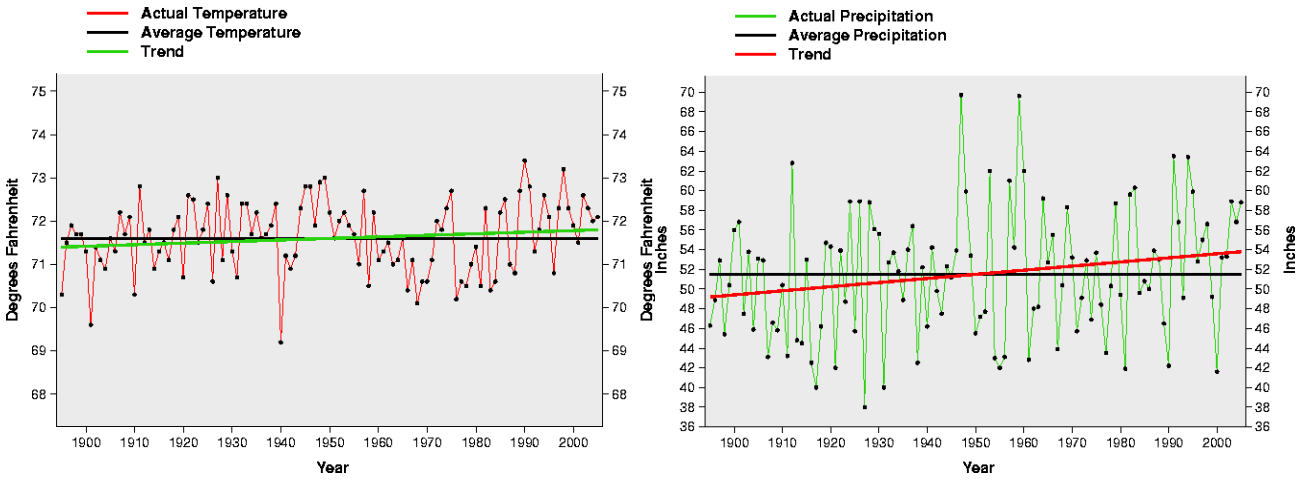
There were 3 days with thunder observed at Niceville, which was 1 day above normal and measurable precipitation occurred on 9 days, which is normal. A Niceville precipitation record of 1.98 inches was established on 15th December which broke the old record 0.85 inches set back in 1977.

The monthly mean temperature was **49.4**°F which is 1.9°F below normal. The average high temperature at Niceville NVOC was **60.6**°F (3.3°F below normal). The highest temperature of the month was 74°F recorded on the 5th December. The average low temperature was **38.2**°F (0.6°F below normal). The lowest temperature of the month was 24°F observed on 23rd December. There were 10 mornings when the temperature fell to 32°F or below, which was normal. No record temperatures were broken during the month.

The Keetch-Byram Drought Index (KBDI) http://www.fl-dof.com/fire_weather/KBDI/ at the end of December 2005, Santa Rosa County's KBDI index ranged from 35 to 467, Okaloosa County's KBDI ranged from 34 to 510 Walton County's KBDI was between 41 to 585, and Gulf County's KBDI ranged from 166 to 367. These values indicate that the current wildfire threat is moderate for the majority of the Eglin AFB reservation.

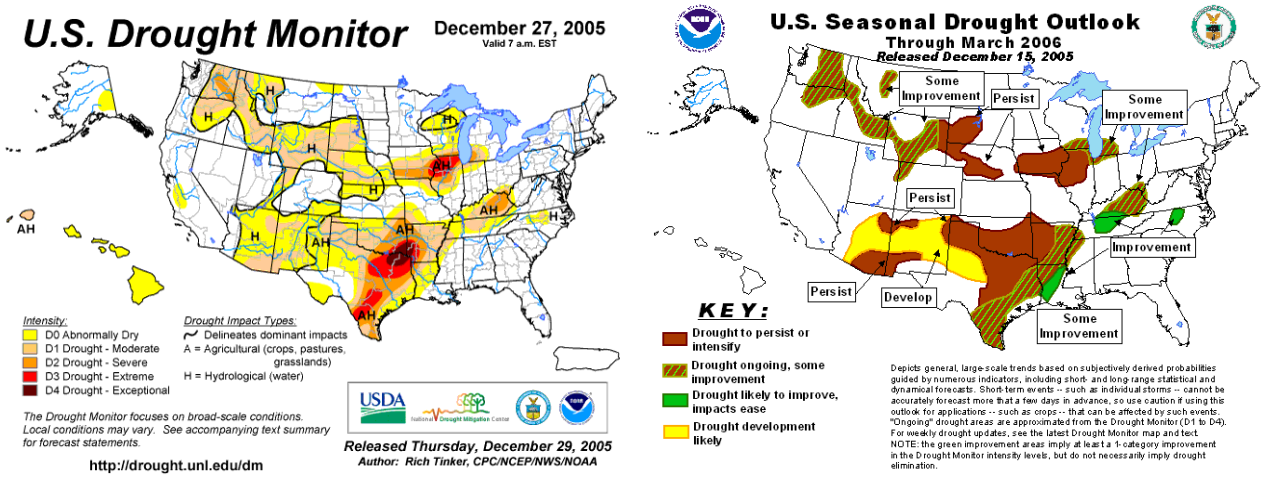
Florida Annual Temperature/Precipitation Trends

The charts below depict Florida's annual temperature and precipitation trend over the past 100+ years. Florida's climate is becoming slightly warmer and much wetter.



Drought Monitor

Exceptional drought is ongoing in eastern OK, TX, and western AR where extreme fire danger persists. No relief is evident for these southern plains states as the current storm track is causing excessive rainfall along the west coast. As these Pacific storms progress eastward, addition moisture over the Gulf of Mexico is currently being tapped. If the predicted 30-day forecast (see January Outlook below) occurs, present soil moisture precludes drought conditions spreading eastward in to FL through early spring.



January Outlook

The Climate Prediction Center http://www.cpc.ncep.noaa.gov/products/predictions/30day/ outlook for January 2006 predicts near normal temperatures and much below normal rainfall for the majority of Florida panhandle.

January Climatology

January is the coldest winter month with polar fronts arriving every four to five days. Gulf lows form when the orientation of the jet stream traverses the Gulf of Mexico or induces a wave along a stationary front. These weather systems result in steady and showery weather producing moderate to heavy precipitation. No measurable snowfall or frozen precipitation has ever been recorded at Eglin AFB during January since records began in 1940. Visibility becomes obstructed due to fog an average of 18 days.

Advection or sea fog (warm air moving over colder Gulf water and inland waterways) can occur anytime during the day, but most often forms during the late afternoon and can persist for several days.

Thunderstorm frequency averages 2 days during January and 9 days have measurable rainfall. Normal rainfall is 4.61 inches at Eglin AFB and 5.80 inches at Niceville recording stations. The maximum Eglin AFB 24-hour rainfall is 5.46 inches recorded on January 26, 1976 and Niceville 24-hour rainfall is 4.40 inches recorded on January 27, 1974. Record Eglin January rainfall is 19.97 inches (1991). The driest Eglin January produced only 0.18 inch in 2003.

Average monthly temperatures range from 60ºF to 42ºF at Eglin AFB and 61ºF to 38ºF in Niceville. The record high for Eglin AFB is 78ºF (six dates) and the record low is 6ºF (January 21, 1985). The January extreme temperature for Niceville is 80ºF (January 20, 1950) and 4ºF (January 21, 1985). Minimum temperatures below 32ºF average seven days during January (Eglin AFB) and twelve days for Niceville.

Relative humidity (RH) averages 70%. RH > 70% occurs 53 percent of the time. The highest hourly humidity (average RH = 77%) occurs between the hours of midnight and 8 a.m.

Surface winds are primarily northerly during the day occur with speeds averaging up to 9 mph. Frontal waves and gulf lows alter winds to a northeast to southerly component. Highest January wind gust was 56 m.p.h. in 1983 from the west.

Hurricane Katrina Update

Katrina, one of the most devastating natural disasters in United States history, was revised downward to a strong Category 3 (similar strength as Hurricane Ivan) at the time of landfall in Louisiana and the Mississippi coast on 29 August 2005. A final report, published by the National Hurricane Center on 20 December 2005, can be viewed at http://www.nhc.noaa.gov/ms-word/TCR-AL122005_Katrina.doc

The total number of fatalities due to Hurricane Katrina is 1,336. In Louisiana where the fatality count reached 1,200; persons of more than 60 years of age constituted the majority of the Katrina-related fatalities. The vast majority of the fatalities in Mississippi probably were directly caused by the storm surge in the three coastal counties. In Florida, three of the direct fatalities were caused by downed trees in Broward County, and the three others were due to drowning in Miami-Dade County. Two deaths were also reported in Georgia, with one directly caused by a tornado and the other occurring in a car accident indirectly related to the storm. Alabama reported two indirect fatalities in a car accident during the storm.

Estimates of the insured property losses caused by Katrina vary considerably and range between about $20 billion and $60 billion. A preliminary estimate of the total damage cost of Katrina is assumed to be roughly twice the insured losses and may exceed $75 billion. This figure would make Katrina the costliest hurricane in United States history.

An unofficial storm tide (actual level of sea water above the National Geodetic Vertical Datum (1929 mean sea level) was 28 feet at Hancock, MS and is probably the highest level the storm surge reached inland at that location. Observations suggest the storm tide reached 10 feet at Mobile, Alabama where Katrina caused flooding several miles inland from the Gulf coast along Mobile Bay. Along the western Florida panhandle, storm tide reached 4 to 9 feet above sea level.

Katrina produced a total of 33 reported tornadoes. One tornado was reported in the Florida Keys on the morning of 26 August. On 29-30 August, 17 tornadoes were reported in Georgia, four in Alabama, and 11 in Mississippi. The Georgia tornadoes were the most on record in that state for any single day in the month of August, and one of them caused the only August tornado fatality on record in Georgia.

This information was compiled from Jackson Guard rainfall observations and NVOC Regional Water Sewer Board, Inc. (Niceville, FL) provided the temperature and rainfall data. Other reports were obtained from Eglin AFB 46th Weather Squadron, Mobile National Weather Service, National Hurricane Center-Tropical Prediction Center, NOAA Climate Prediction Center, National Climatic Data Center, Southeast Regional Climate Center, and Florida Division of Forestry websites.